

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-292294

(43)Date of publication of application : 11.11.1997

(51)Int.Cl.

G01L 5/00

G01L 5/16

G01L 5/20

(21)Application number : 08-277445

(71)Applicant : TOYOTA MOTOR CORP

(22)Date of filing : 27.09.1996

(72)Inventor : OHASHI TAKESHI
SAGIYAMA TATSUYA
OMI YASUAKI

(30)Priority

Priority number : 08 71507

Priority date : 29.02.1996

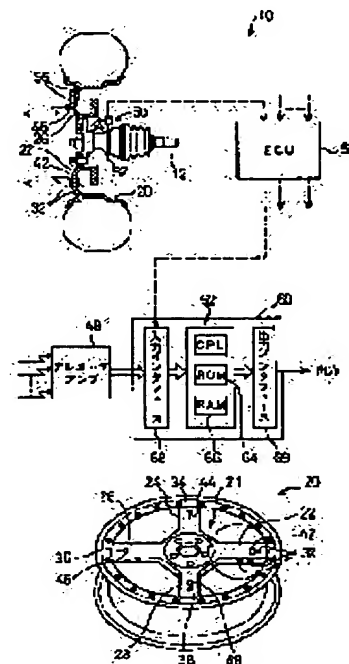
Priority country : JP

(54) AXLE FORCE DETECTOR

(57)Abstract:

PROBLEM TO BE SOLVED: To precisely detect the force acting on the axle of a vehicle.

SOLUTION: An axle force detector 10 has distortion sensors 32, 36 for detecting the distortion of the disc part 21 of a wheel 20 mounted on an axle 12, small-sized and lightweight telemeter transmitter 42, 46 for transmitting the detected distortions, a telemeter amplifier 49 for receiving distortion signals, a rotating speed sensor 50 for detecting the rotating speed V of the axle 12, and an axle force arithmetic device 60 for calculating the force F acting on the axle 12. The axle force arithmetic device 60 calculates the force acting on the axle 12 on the basis of the distortion of the disc part 21 and the rotating speed V of the axle 12. As the rotating speed sensor 50, a one provided on a vehicle as a wheel sensor used for operation control of vehicle such as ABS or TRC is used. Consequently, the unsprung mass of the vehicle can be minimized, and the force acting on the axle 12 of the vehicle can be precisely detected.



LEGAL STATUS

[Date of request for examination]

16.11.1999

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

BEST AVAILABLE COPY

[Date of final disposal for application]

[Patent number] 3255043

[Date of registration] 30.11.2001

[Number of appeal against examiner's decision
of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office